



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,502	11/21/2003	Takashi Miyakawa	117848	7620
25944	7590	06/30/2006		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER EASHOO, MARK	
			ART UNIT	PAPER NUMBER

1732

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,502

Applicant(s)

MIYAKAWA ET AL.

Examiner

Mark Eashoo, Ph.D.

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Asami et al. (US Pat. 4,851,376) when taken with Reed (US Pat. 4,486,934) and Anderson et al. (US Pat. 5,552,351).

Asami et al. teaches the claimed process of forming a honeycomb body, comprising: mixing raw materials and reclaimed materials for forming a honeycomb body (2:48-65 and examples); dried reclaimed unfired /green material crushed into pieces of about 50 mm and less by using fine milling (3:40-65 and 8:10-60); and wherein the reclaimed material is substantially the same as the raw material (2:48-65). Asami et al. further teaches that the reclaimed material may be from "a dried, unfired shaped body or its fragments" (3:40-50 and examples). It is this reclaimed material which is crushed/milled and recycled into the process of Asami et al.

Reed and Anderson et al. are cited as evidence showing that the reclaimed unfired and dried material of Asami et al. is equivalent to material of a green body. Specifically, Reed teaches that the term "green body" is known as a unfired precursor in the production of cordierite (1:10-42). Similarly, Anderson et al. teaches that a dried "green body" is still considered a "green body" until it is fired (4:47-61). As such, it is submitted that Asami et al. anticipates instant claims 1 and 2.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asami et al. (US Pat. 4,851,376) when taken with Reed (US Pat. 4,486,934) and Anderson et al. (US Pat. 5,552,351)..

Asami et al. teaches the basic claimed process of forming a honeycomb body, comprising: mixing raw materials and reclaimed materials for forming a honeycomb body (2:48-65 and examples); dried reclaimed unfired /green material crushed into pieces of about 50 mm and less by using fine milling (3:40-65 and 8:10-60); and wherein the reclaimed material is substantially the same as the raw material (2:48-65).

Asami et al. further teaches that the reclaimed material may be from "a dried, unfired shaped body or its fragments" (3:40-50 and examples). It is this reclaimed material which is crushed/milled and recycled into the process of Asami et al.

Art Unit: 1732

Reed and Anderson et al. are cited as evidence showing that the reclaimed unfired and dried material of Asami et al. is equivalent to material of a green body. Specifically, Reed teaches that the term "green body" is known as a unfired precursor in the production of cordierite (1:10-42). Similarly, Anderson et al. teaches that a dried "green body" is still considered a "green body" until it is fired (4:47-61). As such, it is submitted that Asami et al. anticipates instant claims 1 and 2.

Asami et al. does not teach a specific mixture of reclaimed material to raw materials. Asami et al. does teach that an extruded honeycomb body may be formed by a mixture of reclaimed material to raw materials or wholly of reclaimed materials (2:48-65). Official notice is given that optimizing the relative ratios of reclaimed material to raw materials is well known in the molding art. At the time of invention a person of ordinary skill in the art would have found it obvious to have optimized the relative ratios of reclaimed material to raw materials through routine experimentation, as commonly practiced in the art, in the process of Asami et al., and would have been motivated to do so in order to provide an economical and stable product.

Asami et al. does not teach a using a specific order of mixing the reclaimed material to raw materials. Official notice is given that mixing the reclaimed material into to raw materials in a continuous process is well known in the molding art. At the time of invention a person of ordinary skill in the art would have found it obvious to have mixed the reclaimed material into to raw materials in a continuous process, as commonly practiced in the art, in the process of Asami et al., and would have been motivated to do so in order to reuse reclaimed materials without disrupting the normal processing of raw materials.

Asami et al. does not teach a using a specific type of extruder. Official notice is given that use of either a single screw or twin screw extruder is well known in the ceramic molding art. At the time of invention a person of ordinary skill in the art would have found it obvious to have use of either a single screw or twin screw extruder, as commonly practiced in the art, in the process of Asami et al., and would have been motivated to do so in order to sufficient mixing to provide a stable product.

Response to Arguments

Applicant's arguments filed 17-MAY-2006 have been fully considered but they are not persuasive, because:

A.) Applicant's argument alleges that Reed and Anderson et al. do not teach a crushed green body.

However, applicant's argument overlook that Reed and Anderson et al. were cited as evidence that the reclaimed material of Asami et al. is a "green body" and readable upon the instantly claimed limitation directed thereto. It is further noted that Asami et al. alone provides a teaching of a crushed green body from an undried, formed, material.

B.) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., specific reclaimed material composition) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). As

Art Unit: 1732

presently claimed, only a raw material including raw ceramic powder, a binder, and water is mixed essentially with a reclaimed and crushed material therefrom. This form of recycling the reclaimed materials is substantially taught by Asami et al. as set forth in the above rejection(s).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

June 27, 2006
me

27/June/06